COUNCIL FOR SCIENCES OF INDONESIA
(MADJELIS ILMU PENGETAHUAN INDONESIA)

INDONESIAN ABSTRACTS

ABSTRACTS ON CURRENT SCIENTIFIC
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INDONESIAN ABSTRACTS
Abstracts on current scientific Indonesian literature

COUNCIL FOR SCIENCES OF INDONESIA

MADJELIS ILMU PENGETAHUAN INDONESIA

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Contents:

Page

Introductory note 4
Foreword. 5
0 GENERALITIES..... 6
07 Newspapers. Journalism. 6
2 RELIGION. 7
3 SOCIAL SCIENCES... 7
31 Statistics. 7
32 Political Sciences. 8
33 Economics. 9
38 Trade. 10
4 PHILOLOGY ..... LINGUISTICS. 11
5 PURE SCIENCES. .. 11
54 Chemistry. 11
55 Geology. Meteorology. Geophysics. 12
571 Archaeology. 14
572 Anthropology. 14
58 Botany. 16
6 APPLIED SCIENCES. 19
61 Medical Sciences. Hygiene. Pharmacy. .. 19
619 Veterinary Medicine... 26
624 Civil Engineering. 26
63 Agriculture. Forestry. . Animal Husbandry. .. 27

Djakarta, July 1958.

INTRODUCTORY NOTE

It is indeed a great pleasure for us to present the first issue of *Indonesian Abstracts* to readers abroad as well as in Indonesia.

We are of the opinion that the present edition does not yet meet the requirements needed in regard to the scope and length of the abstracts. Our lack of experience in carrying out such kind of work needs no mentioning.

However, the desire and the need for abstracting scientific literature and for making the materials available for a wider circle other than in Indonesia have forced us to start the work without delay.

This issue contains materials covering the first 6 months of 1957. The Universal Decimal Classification (UDC) system has been used in the classification of subjects of the literature abstracted.

It is our intention that all materials of the first 6 months of 1957 which are not included at the present issue will be inserted in the next edition of the periodical. More space for original articles has been provided than for bibliographic compilations and the like.

Translations of articles from a foreign language into Indonesian which have appeared in the preceding years are not abstracted.

As a rule the author's summary has been used as a basis for our abstracts and if necessary some emendations have been made.

We are convinced that with cooperation of editors who are willing to send us their periodicals and other papers perfection of the abstracts may be easily reached.

We ask the indulgence of the authors if in abstracting their articles some primary points might have been unintentionally omitted. Any suggestions and criticism will be greatly appreciated.

The Editors

INTRODUCTORY NOTE

FOREWORD

Although the amount of research at present being carried out in Indonesia, leaves still much to be desired, a growing interest in science and research could be observed in the last few years, resulting in a rather slow but steady increase in the number of scientific papers published each year. However most of these papers are being written in the Indonesian language and are therefore not accessible to the outside world. Consequently scientific work done in Indonesia during the last years is hardly mentioned in the international scientific literature.

The Council for Sciences of Indonesia, after reviewing the matter, has arrived at the decision that as one of the steps to remedy the situation *abstracts of current scientific Indonesian literature* in the English language should be issued quarterly, covering articles in the field of all the sciences. We realized from the onset that many difficulties would be encountered and that the first issues might show many imperfections. However the Council is fully confident that the Editorial Staff of the *Indonesian Abstracts* under the able leadership of Dr. A. Kostermans, will gradually overcome these difficulties and will succeed in its task to publish work of good quality. In this connection we would like to appeal to scientific workers and editors of scientific journals in Indonesia to assist our Editorial Staff in obtaining all the necessary material so that a complete coverage of the existing literature can be achieved.

It is the sincere hope of the Council that *Indonesian Abstracts* will prove to be of value for the scientists abroad and also for those working in Indonesia.

Sarwono Prawirohardjo,
President,
Council for Sciences of Indonesia

0 GENERALITIES.

07 NEWSPAPERS. JOURNALISM.

KADARUSMAN, M.
Rahasia pemimpin redaksi dan rahasia wartawan. (Publicity secrets of editor-in-chief and journalist) in Warta dan Massa (News and Mass). 2 (1,2) : 53 — 70. June 1957.

Journalist's right of withholding the source of his information is not recognized. According to the existing law, the editor-in-chief is obliged to mention the writer of an article. Doctors are in possession of the right of refusing to disclose their official secret but in some cases they are obliged to furnish information on the matter to the court. Nobody has absolute right of refusing to give evidence before court. Responsibility of the editor-in-chief and journalist and the question of the right of refusing to give evidence in several countries are discussed.

KHOUW GIOK PO, with cooperation of SAMIL, SUDJONO and KAMAL.
Pengamatan pembatja (Readership survey) in Warta dan Massa (News and Mass) 2 (1,2) : 2—19. June 1957.

A readership survey was carried out by the daily "Pedoman" on November 29, 1956 with the aim of obtaining a general view on its reader' habit in reading the various headings carried in the paper. The result indicated that 64,26 per cent of 1321 readers were interested in the daily's editorial which generally dealt with domestic and international political affairs. Only 0,99 per cent of the readers were of the opinion that advertisement was a heading of interest. A number of 55,88 per cent of female readers were interested in the "Pedoman's" editorial and 29,17 per cent of readers under 18 years old paid most attention to this subject.

KHOUW GIOK PO.
Sampai dimana kompetensi publik opinion? (Where is the limit of the public opinion's competency?) in Warta dan Massa (News and Mass) 2 (1,2) 20—39. June 1957.

There exists some doubt concerning the validity of public opinion. Such a view is given on the basis of incompleteness of methods for polling public opinion, the vague understanding on the status and function of public opinion and the existence of doubt regarding the competency of people to express their opinion on complicated political issues. Not all views described as featuring public opinion are true public opinion. A distinction must be made between public opinion and mass opinion, the former is formed through a long public discussion while the latter mainly appears as an expression of a local group of people. Personal opinion is an important factor in the formation process of public opinion.

SUPARNO.

Surat kabar jang terdapat didalam perpustakaan Lembaga Kebudajaan Indonesia (Newspapers available at the Indonesian Cultural Institute) in Warta dan Massa (News and Mass) **2** (2,1): 40—52. June 1957.

Description on the name and place of publication of newspapers published from 1884—1942 in Indonesia.

2 RELIGION.

OSMAN AMIN.

Gerakan modernisme di Mesir (Modernism movement in Egypt) in Bahasa dan Budaja (Language and Culture) **5** (5): 3—14. June 1957.

A lecture delivered by Prof. Osman Amin of the University of Cairo before students of the Univ. of Indonesia on July 11, 1956.

The lecturer gave an account on the activities of Mohammad Abduh in the innovation of the moral character of the Moslem society.

SOCIAL SCIENCES.

31 STATISTICS.

Publications of Bureau of Statistics of the Ministry of Economic Affairs (Biro Pusat Statistik, Djakarta).

Ekspor karet diperintji menurut mutu perdagangan, Djanuari-Desember 1947. (Statistics of rubber exports specified by trade qualities, January-December 1957). Monthly issue.

Ekspor menurut djenis barang diperintji menurut negeri tudjuan dan pelabuhan ekspor jang utama, Djanuari-Desember 1957. (Statistics of exports by commodity specified by the most important countries of destination and ports of export, January-December 1957). Monthly issue.

Ekspor menurut negeri diperintji menurut djenis[2] barang golongan ekonomi, Djanuari-Desember 1957. (Statistics of exports by country specified by item of economic groups, January—December 1957). Monthly issue.

Grafik[2] perkembangan ekonomi di Indonesia, Djanuari-Desember 1957. (Graphs on economic development of Indonesia, January-June 1957). Half-yearly issue.

The graphs describe among others development in the fields of agriculture, foreign trade, finance and communication.

Harga beras dan djagung didaerah perkebunan di Djawa, Djanuari-Desember 1957. (The price of rice and maize in estate areas of Java, January-December 1957). Quarterly issue.

Impor menurut djenis barang diperintji menurut negeri asal dan pelabuhan impor jang utama, Djanuari-Desember 1957. (Statistics of imports by

commodity specified by most important countries of origin and ports of import, January-December 1957). Monthly issue.

Impor menurut negeri diperintji menurut djenis[2] barang golongan ekonomi, Djanuari-Desember 1957. (Statistics of imports by country specified by items of economic groups, January-December 1957). Monthly issue.

Luas panen dan penanaman tanaman[2] rakjat berumur pendek di Djawa dan Madura, Djanuari-Desember 1957. (Quantity of crops and the cultivation of short-lived plants by farmers in Java and Madura, January-December 1957). Monthly issue.

Luas tanaman, produksi dan persediaan tanaman[2] perkebunan jang terpenting, Djanuari-Djuni 1957. (Planted area, production and stocks of principal estate crops, January-June 1957). Half yearly issue.

Perdagangan antara pulau menurut djenis barang, Djanuari-Desember 1957. (Interinsular trade by commodity, January-December 1957). Monthly issue.

32 POLITICAL SCIENCES.

SULAIMAN SUMARDI.

Some aspects of the social origin of Indonesian political decision makers in Hukum-Masjarakat (Law and Society) **2** (2): 24—32. April 1957. (Institute for Social Research, Faculty of Law and Social Sciences. Univ. of Indonesia, Djakarta).

The political decision makers of Indonesia at the present period belong to the generation which had been able to enjoy secondary and university education. The majority of the parliamentarians are high-school graduates, but the majority of the cabinet members and top level civil servants consists of people who have completed university training.

If educational qualifications are to be taken as a prerequisite of vertical mobility, the conclusion may be drawn that overseas study especially in Holland, provided greater possibilities than study in Indonesia. The order of importance of the various areas of ethnic origin within each category of policy-makers is as follows: Central Java, East Java, Sumatra and West Java.

However, if the size of these ethnic groups relative to the whole population is taken into consideration, it seems that the following order of importance may be discerned: Sumatra, Central Java, followed by East Java and West Java both with low ratios. Pre-war civil servants and professionals account for a very large part of policy makers of the present period. Included in this group are those professionals who during the Japanese occupation gave up their attitude of boycotting government service which previously they had considered as one of their nationalist political principles.

Description on the distribution of age, area of ethnic origin, and level of education are tabulated.

MOHAMMAD SADLI.

Aspects of inter-regional industrial development with special reference to Indonesia. Thesis, Djakarta, Nov. 4, 1957 pp. 219.

This thesis gives an analysis on the role of economic motives and other important factors that have caused the distribution of the industrial location in the regions of a country.

The determination of the location of industries depends on factors influencing the cost and supply sides and factors that influence the demand side.

The factors of the supply side include the quantity and nature of natural resources and other factors of production and the factor influencing the demand side is the limited size of the market.

In planning the setting up of industries besides the principles of "comparative advantage", the questions of transportation costs and size of the market should also be taken into account.

Government's guidance concerning the determination of industrial locations is required.

The principles of "comparative advantage" and location of industries and other matters relating to the distribution of industrial location are thoroughly discussed.

The author gives a view concerning the application of the analyzed theory in the case of Indonesia.

Java is predicted to become a vital industrial centre with Djakarta, Surabaja and Semarang as the main cities in possession of the necessary qualifications as locations for the establishment of industries.

With regard to Sumatra, it is described that Palembang has favourable conditions as location for the setting up of industries. In implementing industrial development plans in South Sumatra, stress should be laid on the efforts for migrating a people to the area. Another city in Sumatra expected to become center of industrial location is Medan, which is strategically situated in a centre of world transportation lines.

According to the author, South Sulawesi will also become an industrial area with Makasar as centre.

The questions of size of population, the existence of natural resources and means of communication are important factors in the implementation of an industrial development plan.

There are possibilities of establishing textile and iron and steel industries in Indonesia. Although having limited size of market the setting up of a steel mill with a capacity of 250.000 tons a year is reasonable. Such a view is based on the possible increasing demand for iron and steel due to the intensification of activities for realizing the implementation of development plans in Indonesia.

SUBROTO.

The terms of trade, an Indonesian case study. Thesis, Djakarta, Nov. 4, 1957, pp. 133.

Like other underdeveloped countries whose main source of foreign exchange is the proceeds of exports of raw materials to industrially advanced countries, Indonesia has in the past suffered and is still suffering from erratic, secular and cyclical movements of terms of trade.

If 1950 is 100, the terms of trade for 1947 was 83 and 90 in 1948. Compared to 1948 the terms of trade in 1949 dropped to 89.

The increased price at the world market for raw materials as a result of stockpiling for strategical purposes would have been favourable for the terms of trade of 1949, were it not for abnormally high freight and insurance costs which kept the terms of trade down.

As a result of the outbreak of hostilities in Korea and consequently the armament race that took place in the western world, the terms of trade underwent a favourable improvement.

It is cited as an example that if terms of 1939 are put at 100, they amounted to 100 again in 1950.

Due the strengthening of the United States policy in regard to control of prices of the raw materials, and distribution of certain materials, prices of raw materials dropped sharply in the second part of 1951.

The future terms of trade of underdeveloped countries is very difficult to foresee, due to the many unpredictable determinants that influence the terms of trade, such as the trade, the monetary policy and the fiscal policy of the governments.

The future terms of trade of Indonesia depend largely upon the prospects of rubber and tin. Due to the innovation of synthetic rubber the future status of rubber gives hope, that it can exist side by side with synthetic rubber.

The innovation of electrolytic process in the tinplate industry also endangers the market of tin.

Favourable factors in the future terms of trade of Indonesia are the independence of Indonesia of rice imports and the fall in the textile prices on account of the appearance of India and Japan as cheap textile exporters.

4 PHILOLOGY LINGUISTICS.

LATIF, S. M.

Kata "tuan" dan "uda" di Minangkabau (The words "tuan" and "uda" in Minangkabau) in Bahasa dan Budaja (Language and Culture) 5 (5): 48 June 1957.

One is used to call the younger or older brothers of his/her mother "mak tu (w) an" or "u (w) an". "Tuan" is also used for calling someone's younger or older sisters. In the case of the latter "tuan" is mostly used in composing a poem.

In the Pariaman regency "uda (udo)" was formerly used for addressing a remote male-kin hailing from Padang or from regions south of the city. Now, "uda" is also used for calling one's full-cousins. Male residents hailing from Pariaman are not called "udo" by the younger ones.

Younger relatives call those in possession of family title of their father's side "adjo". Older residents address younger male members of a family by title conferred by head of the clan during a wedding ceremony.

SABIRIN.

"Anda" kata baru dalam bahasa Indonesia ("Anda" — a new word in the Indonesian language) in Bahasa dan Budaja (Language and Culture) **5** (5): 45—7. June 1957.

This article deals with the origin of the Indonesian word "anda" which is proposed as a substitute for the English "you".

Annotation by Prof. Purbatjaraka concerning the use of the word is appended.

WANTALANGI, A.

Seluk-beluk bahasa Tondano (Minahasa) (Peculiarities of the Tondano language) in Bahasa dan Budaja (Language and Culture) **5** (5): 37—42. June 1957.

Description dealing with the use of forms of verbs according to the tenses and the use of possessive pronouns in the Tondano language are presented.

5 PURE SCIENCES.

54 CHEMISTRY.

BOUWENSCH, A. J.

The chemistry of cement in Masalah Bangunan **1** (4): 26-8. Apr. 1957.

The modifications of Portland cement in storing are discussed. A greater security in binding time will be achieved by adding more gypsum; by treatment with moist air, free from carbonic acid the tendency of lime reactivity can be avoided (ripening). The use of alkaline-rich soil for manufacture of cement, is not advisable. The hazard of modification is best guarded by increasing the iron content, and so reducing the aluminium-oxide-modulus.

Discussed are further the replacement of calcium-carbonate by calcium-hydroxyde or calcium-sulfate and the replacement of the clay by natural minerals and industrial waste-product.

Portland cement as by-product; discussed are the winning of alum-earth and Portland cement and the winning of iron and Porltand cement.

SUTARMAN.

Indonesian chemical nomenclature, Djakarta, May '57. Published by M.I.P.I.

As the author states the aim of the rules in the unification of chemical nomenclature in the Indonesian language and to prevent introduction of incorrect or obsolete names. The I.U.P.A.C. rules, already generally accepted are the basis of the Indonesian rules, where credit is given to the genius of language. The first Indonesian rules were accepted in 1947, they were revised and emended in 1955 by a special commission. This booklet represents the English edition of the revision.

TJIOE PEK SIOE.

The isomerization of kemiri oil to drying oil. Thesis, Bandung, 23 Febr. 1957.

The kemiri oil from seeds of Aleurites moluccana, belonging to the group of semi drying oils, because of presence of a large amount of linolenic acid in her fatty acids, may be easily converted into a product with improved drying properties by a conjugation process with catalysts.

Conjugation of the linolenic acid gives a conjugated product with increased rate of drying. Besides of conjugation, the catalysts induce other reactions as polymerization, cis-trans isomerization and intrapolymerization or cyclization; trans- and cyclic isomers in an oil produce a film with undesirable drying properties (after tack).

Different catalysts were tried out (Ni, SO2 and iodine). Ni, containing a small amount of sulphur or guhr catalyst and applied at low temperatures (120°-180° C) leads to products with high drying rates and films shows less deterioration after prolonged exposure.

With SO2 the drying properties were not improved.

Iodine proved to be a very active catalyst; optimal results were obtained with 0.7 iodine at 190° C. and 3 minutes reactions on a large scale, provided the temperature is relatively low.

With iodine a product was obtained similar to that of linseed oil which may compete favourably with the latter; the film, moreover, does not turn yellow after standing as the linseed-oil film and may therefore be used for manufacturing white paints.

55 GEOLOGY. METEOROLOGY. GEOPHYSICS.

Meteorological and Geophysical Institute (Ministry of Communications), Djakarta. Earthquakes in Indonesia for the years 1948-1955, pp. 72, Maps 10, Djakarta 1957.

A continuation of series "Aardbevingen in Ned. Indie" (up to no. 44, covering the year 1942). For the years 1943-1947 no data are available. Data, compiled from blanks, distributed by the Institute to volunteers all over the country. The data are transposed in the Rossi-Forel scale. The descreased number of shocks in the post-war years is due to the descreased diligence of observators and reporters. From 1956 onward all data would be reported in the modified Mercally scale. Some time errors, due to circumstances have crept in.

Map for seismic districts, for differences in local time; tables on total number of shocks, on all reported earthquakes; tables of epicentre location, focal depth and magnitude, as issued from the Bureau Central Intern. de Seismologie, Strassbourg, epicentre maps and lists of provisional origin-time, epicentre locations and focal depths of the local shocks of West Java, from seismograms of Djakarta, Bandung and Lembang.

RITSEMA, A. R.

(Meteorological and Geophysical Inst., Djakarta).
Amplitudes of bodily seismic waves in Madjalah Ilmu Alam untuk Indonesia (Journal for Natural Sciences for Indonesia) **112**(2):135-52. 1957. (Constributions of Dept. Geology no. 22 pp. 1-18, 1957).

Numerical values of the amplitude over period (A/T) ratio for P-waves are calculated as a fuction of focal depth and epicentral distance.

Jeffrey's velocity distribution of longitudinal waves in the earth's mantle is used. Two different velocities of longitudinal waves in the crust of the earth are considered, viz. Vo = 7.75 km/sec.

It is seen that the ratio of the vertical ground movement over the period (An/T) — function therefor is very useful for a magnitude determination of the earthquakes with such a focal depth.

RITSEMA, A. R.

On the use of transverse waves in earthquake mechanism studies and the of direction fault displacement in SE Asian earthquakes, in Verhandelingen no. 52, Lembaga Meteorologi dan Geofisik, Djakarta, pp. 32. - 1957.

A new method of plotting the initial motion transverse waves is developed. It is demonstrated that is practically impossible to be sure of a reading of the initial motion of a transverse wave. All the same S wave data can be used for the derivation of the direction of fault displacement in the focus of an earthquake by a determination of the position and amplitudes in three components at a fixed time somewhere in the S wave train is sufficient to the purpose. It follows that S.K.S. waves probably are of a very restricted value.

The determination of the direction of fault displacement in 28 SE Asian earthquakes shows:

1. that density differences in the fault rock probably are not the primary cause of earthquakes.
2. that it is not likely that all earthquakes in the area are caused by some uniform stress system that everywhere has the same position.
3. that on the contrary the fault displacements are closely connected with the position of the seismic zone at place of the earthquakes focus, and
4. that the fault displacements in earthquakes foci do not reflect on a small scale the greater orogenic processes.

57 BIOLOGY.
571 ARCHAEOLOGY.

SUWITO SANTOSO.

Pura Segara Penimbangan (The Temple of Segara Penimbangan) in Bahasa dan Budaja (Language and Culture) 5 (5) : 15 — 24 June 1957.

Pura Segara Penimbangan (Sea-temple) is situated at a village three kilometers west of Buleleng (Bali).

According to the inscription on the wall of Pura Segara, the temple was built by I Gadjen. The article is illustrated with a figure showing the place for holding religious ceremonies and the site of a number of images found in the yard of the temple.

572 ANTHROPOLOGY.

KUNTJARANINGRAT, R. M.

Beberapa metode anthropologi dalam penjelidikan[2] masjarakat dan kebudajaan di Indonesia (Some anthropological methods in cultural and social researches in Indonesia.) Thesis, Djakarta May 17, 1958. pp. 470.

This thesis gives a survey of anthropological methods and theories which are applied in Indonesian material beginning from the early 19th century. Those methods and theories are organized systematically as well chronologically.

The systematic arrangement leads to the following conclusions:

1. Research on the activity of law has received little attention in cultural anthropology but on the contrary great attention has been paid to that subject in the cultural and social researches in Indonesia. This has resulted in a separate discipline of science called studies of adat law which treats the object of law from the viewpoint of positive law.
2. Adequate attention has also been paid in the research on the development of religion and primitive thoughts in the country.
3. A number of the Leiden-educated scholars have paid sufficient attention to the research on the social structure of Indonesia.
4. Fieldwork has been carried out for a long time but professional ethnography with its new methods for collecting and compiling ethnographical materials have been used in Indonesia just recently.
5. Attention to the research on the diffusion of culture in Indonesia has been paid by cultural anthropologists, archaeologists and other scholars who are interested in the Indonesian cultural history.
6. After the Second World War, research on processes of acculturation in Indonesia has been intensified.
7. Insufficient attention has been paid to the field of social organization, a field of research in cultural anthropology which has achieved its greatest results.

The chronological arrangement leads to the following conclusions:

1. There exists a collection of writings on land and regional races of Indonesia composed by foreign travellers, missionaries, philologists, natural research scientists and former Dutch officials who have been staying in the various communities of regional races of the country.
2. In the middle of the 19th century, J.J. de Hollander and P.J. Veth had compiled the writings of the earlier scholars. Those compilations have caused the birth of a new branch of science i.e. land en volkenkunde van Nederlandsch Indië which has as its object of research the geography of Indonesia as well as the social organization and culture of her inhabitants.
3. Influenced by the theory of the social evolution, G.A. Wilken gave a theoretical basis to the study of the social organization and culture of the Indonesian people, which had led to the separation of cultural anthropology of Indonesia from its mother science i.e. land en volkenkunde van Nederlandsch Indië.
4. After the period of Wilken a decline in the development of ethnology has been noted because of the intensification of several fields of research.
   This activity has caused the birth of several new branches of sciences at the beginning of the 20th century such as Indonesian philology, Indonesian archaeology and the study of Indonesian adat law
5. Ethnology of Indonesia has become a "science of leftovers" which mainly deals with matters left neglected by philology and the study of Indonesian adat law. There has been great activity in collecting ethnographical data from the various unknown areas of Indonesia but professional ethnographical methods were used not earlier than the period after 1920.
6. For a long period cultural and social research in Indonesia was conducted by philologists, archaeologists and experts in the Indonesian adat law. But, after 1920 when the Leiden educated anthropologists came to the fore Indonesian anthropology got a new life. The work of those anthropologists had a similar theme i.e. the reconstruction and analysis of the social structure of ancient Indonesia.
   After the Second World War Indonesian anthropology paid great attention to the study of acculturation.

PAKAN, L.

Memperkenalkan kebudajaan dan kesenian Toradja kepada masjarakat Indonesia (Introducing the culture and art of the Toradja to the Indonesian society) in Bahasa dan Budaja **5** (5) : 25-36. June. 1957.

The population of Toradja now 1,500,000 in number are still maintaining their old way of life in religion (animism and spiritism) and culture. Their

primitive customs and traditions are up to now not affected by the influences of Islam and Christianity.

The writer gives an outline on a ritual of marriage in the Toradja society.

58 BOTANY.

BISSET, N. G.

(Treub. Lab. Kebun Raya, Bogor) Cardiac glycosides Part I in Ann. Bogor, 2 (3) : 193 — 208. Oct. 1957.

Some Asiatic genera of Apocynaceae have been examined by means of chemical and pharmacological methods (Kedde reaction; digitalis-like reaction when injected in decerebrated frogs; paper chromatography) for the presence of cardiotonic glycosides. Both fresh and herbarium material are used, in the latter case only a positive result is of significant value. Carissa carandas L. and C. spinarum L. both contained cardiac glycosides; a minor component of the latter may be odoriside H. C. edulis did not contain any glycosides, but poisonous forms may exist.

Vallaris Burm. F. and Beaumontia Wall. had glycosides in all the species examined.

In species of Anodendron A.DC., carrying glycosides, these probably belong to the strophanthidin/strophanthidol/periplogenin type.

Amphineurion (A.DC) Pich. and Pottsia H. & A.: inconclusive results were obtained, so that the possibility of cardiac glycosides being present must remain open.

Parsonsia R. Br.: material from the living type of P. burmensis Boerl. did not have any glycosides, contradictory to results elsewhere (in literature).

Kibatalia G. Don and Funtumia Stapf. species contained alkaloids rather than cardiac glycosides.

A summary of the genera of Apocynaceae at present believed to contain cardiac glycosides is appended.

BISSET, N. G.

(Treub. Lab. Kebun Raya, Bogor), Cardiac glycosides Part II in Ann. Bogor, 2 (3) : 211 - 7. Oct. 1957.

Niaarin, the cardiotonic principle isolated from the latex probably of Ogcodeia ternstroemiiflora Mildbr. (Moraceae) which is used as an arrow poison in Western Colombia, is shown by paper chromatography to be a mixture of at least 8 components; the glycosides identified include a substance A of Dolder et al., antioside, d — and B — antiarin.

Seeds of a herbarium specimen of Ogcodeia ternstroemiiflora (Krukoff 1306) are likewise shown to contain at least 12 cardiotonic compounds; substance A of Dolder et al., antisiode, and antiarine are among the glycosides present.

The great similarity with the cardiotonic glycosides composition of the latex and seeds of Antiaris toxicaria Lesch. is pointed out.

BISSET, N. G.

(Treub. Lab. Kebun Raya, Bogor), Cardiac glycosides Part III in Ann. Bogor, **2** (3) : 219 — 31. Oct. 1957.

Seeds from two herbarium specimens of Antiaropsis decipiens K. Schum. (Kalkman 3466 and Royen 3608) have been examined for cardiac glycosides. Paper chromatography reveals the presence of at least 12 components among these are d-antiarin, antioside (one of the main constituents), and possibly substance E of Dolder et al., (1955), known from the latex and seeds of Antiaris toxicaria Lesch. Some of the other, unidentified, compounds are also present in the seeds of Antiaris toxicaria.

DIE, J. VAN and R. SOEMARSONO.

(Treub. Lab. Kebun Raya, Bogor), The wax layer of the fruit of Fagraea borneensis Scheff. in Ann. Bogor, **2** (3) : 225 — 31. Oct. 1957.

The fruit wax of Fagraea borneensis Scheff (Loganiaceae) consists of 3 per cent cis-polyisoprene (rubber) and ca. 99% esters of triterpenols (mainly lupeol) and fatty acids (with average mol wt. 317). It occurs in the form of globules, chiefly in the epidermal, but also in a number of hypodermal cell layers. It seems probable that the wax globules originate in the plastids.

The excretion of the petiole glands has a composition differing from that of the fruit wax and resembling more that of the fruit-cuticle, from which free oleanolic acid was isolated as the main component.

HOLTTUM, R. E.

Flora Malesiana Praecursores XVI. On the taxonomic subdivision of the Gleicheniaceae, with descriptions of new Malaysian species and varieties, in Reinwardtia, **4** (2) : 257 — 80. Sept. 1957.

A new subdivision is presented of the fern family Gleicheniaceae. The genus Platyzoma is excluded from the family. The genus Stromatopteris from new Caledonia is arranged in a distinct subfamily; in the subfamily Gleichenoideae two genera are recognized (Gleichenia and Dicranopteris). A conspectus of a new system with key is given.
A number of new species, varieties and combinations is made.

McWHAE, KATHLEEN M. (née Pike).

A note on the pollen of Whiteodendron and Kjellbergiodendron (Myrtaceae) in Reinwardtia, **4** (2) : 189 — 91. 1957.

Description of pollen grains of Whiteodendron moultonianum and Kjellbergiodendron celebicum makes it evident, that the former belongs to Leptospermoideae, the latter, however, to Myrtoideae — Myrteae — Myrtineae; the sporomorph fossil Myrtaceidites mesonesos from the Oligocene brown coal deposits in Victoria (Austr.) bears a very close relationship to the living Whiteodendron.

KOSTERMANS, A. J. G. H.

The genus Firmiana Marsili (Sterculiaceae) in Reinwardtia, **4** (2) : 281 — 310. Sept. 1957. (Jan. 1958).

A rewritten and emended publication of an article which appeared as Communication no. 54 of the Forest Research Inst. Bogor, Dec. 1956, pp. 3 — 33. The genera Firmiana Mars. and Erythropsis Lindl. are combined. Eight species are recognized (F. colorata (Roxb) R. Br., F. diversifolia A. Gray, F. fulgens (Wall. ex Mast.) Corner, F. hainanensis Kosterm., F. major Hand-Mazz.; F. papuana Mildbr., F. philippinensis Kosterm., F. simplex (L) Wight.

KOSTERMANS, A. J. G. H.

Lauraceae in Reinwardtia **4** (2) : 193 — 256. Sept. 1957.

An attempt is presented of a classification of the Lauraceae, into taxa down to the rank of subgenus. The characters and their taxonomic value are discussed amply. System of the family and keys are given. Two subfamilies, viz. Lauroideae and Cassythoideae are recognized; several new tribes, subtribes and subgenera are described.

The accepted genera, 31 in number are surveyed, with synonyms, typification, description and particulars. The trend of evolution is given in a diagram.

Additional notes to "The genera of Lauraceae", which appeared in 1952, are given.

KOSTERMANS, A. J. G. H.

Le genre Ocotea Aubl. (Laur.) à Madagascar in Pengumuman no. 60, Balai Besar Penjelidikan Kehutanan, Bogor. (Communication no. 60, Forest Rerearch Inst. Bogor).

A supplement to the Lauraceae (Tom. 81) in Humbert, Flore de Madagascar. A critical enumeration of the 16 species described in the Flora and 16 new species added; new species illustrated.

SLEUMER, H.

A revision of the genus Diplycosia. (Ericaceae) in Reinwardtia, **4** (2) : 119 — 61. Sept. 1957. (Jan. 1958).

In the nearly exclusive Malaysian genus Diplycosia Bl. 84 species and 12 varieties are distinguished, of which 17 new Malaysian species resp. 8 varieties and 2 extra malaysian species are described; 4 species are reduced to varietal rank, one new name is proposed. With key and index to specimens.

6 APPLIED SCIENCES.
61 MEDICAL SCIENCES. HYGIENE. PHARMACY.

ENGELEN, J. C.

Sinusitis in children in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (4) : 113 — 25, Apr. 1957.

Sinusitis in children is common in Indonesia; symptoms, diagnosis and therapy are discussed. Achromycin Lederle was tried out on 27 patients,

with striking success; it is easily taken even by children of the age of 5 years and does not produce any reactions.

GAN KOEN HAN, SIE BOEN LIAN, R. WARSA, A. A. HEATH & R. SURJONO JUDODIBROTO.

Pengasingan suatu virus (Sawah Virus) dari Keratitis Punctata Tropica (Sawah-Keratitis Westhoff) Isolation of the "Sawah-Virus" from Keratitis Punctata Tropica, (Sawah-Keratitis Westhoff) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (1) : 1-13, Jan. 1957. 11 figures.

An invisible filtrable agent with virus from corneal scrapings of patients suffering from Keratitis punctata tropica (also called: Sawah-Keratitis Westhoff), an eye disease, occuring in Indonesia.

The virus was grown on the chorio-allantoine membrane of duck eggs and produced characteristic lesions, protruding as white elevations were solid, well-defined and had the size of a rice grain or less, sometimes showing some apical erosion and giving the impression of an umbilication; they are built up of hyperplasia of the mesoderm and associated with a slight activity of mesoderm, sometimes observed in the C-A membranes of control eggs. No inclusion bodies were indentified in specially stained section of infected chorio-allantoic membranes.

The virus is not pathogenic for rats, adult white mice, suckling mice, goats, guinea-pigs or monkeys. Rabbits inoculated by corneal scarification or instillation into the conjunctival sac with virus suspensions mixed with sterile rice or sand, developed small infiltrations on or sometimes along the scarification lines in the cornea. Central clearing, as in human sawah-keratitis, was not observed in rabbits.

The eggs-passage virus regularly induced the Hirst phenomenon with fowl erythrocytes. Patients with sawah-keratitis developed antihaemoglutinins and compliment fixing antibodies with a distinct rise of the titres in the course of the illness. Cross serological reactions with different strains have not yet been carried out.

MA'MOEN, R.

Tjara pemeriksaan penderita tersangka tjatjar. (Methods of testing for variola patients) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (6): 202-6, June 1957.

A discussion on variola, variolois and alastrim, infection, diagnosis, etc.; issue of an enquette to investigate epidemiology.

MOCHTAR, R.

Tugas dokter dalam masjarakat (The physician as a public servant) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7**(6): 179-87, June 1957.

Discussion and bibliographical survey of Public Health as a compulsory discipline; preventive medicine; differences between a Public Health physician and private one; public health as part of preventive medicine; different public health systems (Continental European, Anglo-Saxon, Slav type); cooperation.

MOCHTAR, R.

Perkembangan sosial dalam lapangan kedokteran (Social aspects of medicine) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (5) : 140 — 54. May 1957.

A discussion of different factors as: general and social factors in connection with diseases, emotional factors, factors which influence medication; history of hygiene and social hygiene; public health in the 19th century etc.; discussion on relationship between health of the population and its social standing.

NURDJAMAN SOERJAWIDJAJA.

Febris rheumatica dan penjakit djantung rheumatik di R.S.U.P. Surabaja in Madjalah Kedokteran Indonesia (Indonesian Medical Journal), **7** (2) : 58 — 63. Febr. 1957. (Febris rheumatica and chronic rheumatic heart-disease in the General Hospital, Surabaja).

A survey of Indonesian literature, statistics carried out in the hospital, which show, that both diseases are not rare (0,09% of all admitted patients had poly-artharitis rheumatica acuta; 33,2% of the heart-disease patients had rheumatic heart-disease). In most cases the course of rheumatic fever is probably a typical; it seems to be the main cause of organic heart-diseases, under the age of 30 years. Chronic rheumatic valvular diseases is more frequent in females (58,6%).

OEY KHOEN LIAN.

Perkakas[2] untuk pemeriksaan dan operasi mata (Instruments for inspection and operation of eyes) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal), **7** (4) : 126 — 27. Apr. 1957.

Loupe-Berger, entropion-pincet, Falta and rein-keeper, improved by author are illustrated.

OOSTERHAGEN, P. and A. H. VAN SOEST.

"Acute buik" bij de zuigelingen ("Acuta belly" in baby) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal), **7** (2) : 64 — 5. Febr. 1957.

Description of a case of perforation of the stomach in a 6 months old Indonesian girl, probably caused by a fall. Attention is called to the increased chance of traumatic perforation of the stomach in infants suckled too often.

POEY SENG HIN.

Kwashiorkor di Djakarta dan sekitarnja (Kwashiorkor in Djakarta and surroundings). Thesis, Djakarta, Sept., 4, 1957. pp. 219. Indonesian with summary in English.

After a survey of literature the author discusses the results of investigations in 138 cases or which 95% were of Indonesian origin, comprising mostly children of age between one and two years. Lack of (animal) protein, calories and vitamin are the chief causes, induced insufficient knowledge of child care and value of protein-rich food, superstitious attitude to forbidden food, prolonged breastfeeding, bad hygienic conditions and economic inferiority.

The syndrome is characterised by retardation or cessation of growth, conspicuous in the age group of one year, accompanied by demineralization of the bones ; mental changes, apathy, loss of subcutaneous fat and muscle atrophy, mild and severe edema, anorexia, diarrhea, alterations in texture and colour of hair and hair-fall (eyelashes not affected, even showed increase of growth), crazy pavement dermatosis of the skin (mainly edematous kwashiorkor with poor prognosis), liver enlargement in 48% of the cases, slight albuminuria, anemia of different kinds. (Especially pronounced if ankylostomiasis was present), depression of the erythropoitic system is indicated as the acceptable cause, hypoplasia or aplasia of the bone marrow is due to protein deficiency and chronic infections, iron deficiency was present, analysis of the protein spectrum revealed a low serum level of total proteins, no decrease of the blood urea level was detected, reduced cholesterol value was shown, liver biopsies showed a serious degree of fatty infiltration, parasitic infestations and/or infectious diseases accompanied usually the sickness ; noma was found in 13% of the cases. Prognosis was improved with penicillin and protein and vitamin rich diet ; kwashiorkor patients appeared to be alergic to tuberculin, symptoms of vitamin A deficiency (xerophthalmia, etc.) were mainly present in the 2 — 3 years age-group.

The basic principle of successful treatment is to place the patient on an easily digestable and absorbable diet of high quality protein, adequate calories, liquids, vitamins and minerals. Parasitic infestations may be treated as soon as the general condition improves.

Mortality rate is high. Recovered patients still shows signs of incomplete improvement of the liver.

The clinical . pattern of kwashiorkor in Djakarta showed more signs of vitamin A deficiency and noma, compared with that of other countries.

RAHARDJO NITISAPUTRO, R. M.

Lichen myxoedematosus s. Papular myxedema in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) 7 (4) : 128 — 30. Apr. 1957.

Description of a case of papular myxedema in a young Indonesian male Biopsy is emphasized to be important in cases, where the clinical

picture is dubious. Knowledge of histopathology of a clinician is a great advantage to support the pathologist, who does not see the patient himself (5 photographic reproductions).

SAMALLO, L. G. J.

B.C.G. vaccination in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (1) : 14 — 6, Jan. 1957.

A defence of B.C.G. vaccination in Indonesia.

SCHAAFSMA, J.

Pembrantasan international tentang penjalah-gunaan obat[2] bius (International measures against abuse of narcotics) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (6) : 188 — 97, June 1957.

A general bibliographical survey of the history, international conferences and their results.

SOEMARDI, R.

Frekwensi anomali gigi-geligi pada anak[2] sekolah rakjat di Jogjakarta. (Frequency of denture anomalies in school children of Jogjakarta). Thesis, Jogjakarta, 11 June 1957. pp. 89.

A survey has been carried out mainly from the orthodontical point of view, to obtain material to evaluate the necessity of systematic orthodontical prophylaxis. The following subjects were investigated :

1. the mesiodistal diameter of the upper permanent incisive.
2. the eruption of the permanent teeth.
3. the relation between upper and lower jaw.
4. the form of the dental arch.
5. the frequency of the malocclusions.

Statistical tables give the following results : 80% of the children show malocclusions of which 60% do not need treatment, because ther are no detrimental consequences, 20% have severe malocclusions, for which treatment is needed.

The malocclusions are caused by lack of space in the processi alveolares ; no connection could be found with general nutritional conditions. Abnormal frenum labii superioris is not common and hence not important factor.

Differences were found in the time of eruption of the permanent teeth compared with those of children of the white race.

SOEHARTO, R. H.

Kesehatan di Republik Rakjat Tiongkok (Health in the Chinese People's Republic) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (3) : 87 — 104. March 1957.

A report on a study trip to China ; the report covers, besides the field of medicine, information on other subjects.

SOEMIATNO.

Vibrio Cholera dan Vibrio El Tor in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (5) : 155 — 63. May 1957.

Bibliographical survey of the differences between the two Vibrios in connection with occurence of Vibrio el Tor in Celebes and the possibility of connection between Celebes and cases of Vibrio El Tor in Arabia (Mecca pilgrims).

SOETEDJO, GAMBIRO, CH. MAKALIWY.

Stenosis bawaan pylorus jang hypertrofis pada baji[2] Indonesia (Hypertrophic pylorus stenosis in babies in Indonesia) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (5): 164—168. May 1957. Two cases of this disease (pylorospasm) in Indonesian infants are described; they represent perhaps the first observed cases in Indonesia. Aspects on aetiology and therapy are surveyed. (6 photographic reproductions).

STIBBE, W. K. M.

Over medische ethiek (On medical ethics) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (1): 17—22. Jan. 1957.

A lecture on this subject, delivered at the meeting of the Society of Indonesian Physicians.

TAN, R. E.

Report of a giant diverticulum of Meckeli causing symptoms of an acute abdomen in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (2): 66—71. Febr. 1957.

A case of giant Meckel's diverticulum with a kink of the distal end is discussed. The diagnosis of a diverticulum is still a problem as roentgenologic examination is useless. It is reasonable to examine the intestine for 1 m, if the appendix proves to be normal and to extirpate it if present. The pursestring method of closure is condemned. An uncomplicated diverticulum if found and extirpated is better than an inflamated one.

TAN KING POO.

Penjakit kista paru. (Pulmonary cystic disease) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (2) : 37—49. Febr. 1957.

In the Indonesian medical literatute and according to the experience of the author pulmonary cystic disease is rare in Indonesia. Symptoms and therapy — especially the surgical one — and two cases, treated by the author are discussed ; one of a solitary large cyst in the lower lobe of the left lung, which could be removed by local excision (patient recovered; the other case showing multiple small cysts diffusely dispersed over both lungs (operation contra-indicated) ; 18 photographic reproductions.

TAN KING POO.

Tumor thymus in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (3) : 73—80. March 1957. (followed by a discussion of Roekmono pp. 80—1).

A case of mediastinal tumor is described and discussed, which proved to be a thymoma after extirpation (by thoracotomy) and histological examination. Thus far in Indonesia a case of tumor of the thymus was never found at operation ; Kouwenaar described formely 5 cases of thymus neoplasms, found at autopsy of which one was a thymoma. The differentiation of thymic tumors, their relationship with myasthenia gravis, their clinic and therapy are discussed. (13 photographic reproductions).

TAN THIAM HOK.

Ichtiar kearah standardisasi tjara[2] pemeriksaan laboratorium mengenai Mycobacterium tuberculosis dalam dahak di Indonesia. (Towards at standardization of the laboratory methods for the detection of Mycobacterium tuberculosis in human sputum in Indonesia).
Thesis, Djakarta, May 22, 1957. pp. 120. In Indonesian with extensive English summary.

Development of methods of laboratory diagnosis of tuberculosis is surveyed. Microscopical method of examining were discussed and an improved staining method described. A method of sulphuric acid homogenization is devised. The different factors influencing growth and contamination in Lowenstein-Jensen medium were studied. Animal inoculation for diagnostical purpose showed that temperature measurements of Guinea pigs are worthless ; Guinea pigs of 300 — 450 gram gave the most favourable results for animal inoculation. Pathologically evidence of tuberculosis in Guinea pigs was demonstrated in enlarged lymph-nodes, heavier and longer spleens (with about one third of microscopical tubercule occurence, but only in one tenth of cases acid-fast bacilli could be demonstrated) ; liver enlargement is slight ; macroscopical tubercules in the lung are very scarce, none were found in the kidneys.

Mucin added to homogenized sputum augments virulence in inoculation diagnostical test.

The Gabbet's and authors's staining methods, applied to sputum of patients of the Central General Hospital in Djakarta proved to be superior to those of Ziehl-Neelsen.

Clinical and radiological positive tuberculosis cases could be sufficiently corroborated by the author's methods (68 — 80%). Animal inoculation proved to be superior to the cultural method and the former cannot replaced by the latter.

The influence of tuberculostatic drugs was tested and the effect on the viability or vitality of the bacilli was demonstrated in the sputum in about three per cent of pulmonary tuberculosis cases, which suggests that microscopical examination alone is not sufficient to diagnose pulmonary tuberculosis. A plea for standardizing tests is made.

TENG TJOE TIE, M. SOEARDIMAN, R. WARSA and GAN KOEN HAN.

Injection fluid in bottles as potential vector of pathogenic germs in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (3) : 82 — 6. March 1957.

Injection fluids out of the partly used contents of bottles with rubber stoppers proved to be badly contaminated with yeastcells and bacteria. Various test micro-organisms and Vaccinia virus may live from a few hours to long periods in different injection fluids and these so called sterile bottles act as vectors of pathogenic germs, i.e. serum hepatitis. A plea is made for the use of ampoules containing one injection dosis, instead of bottles. The rubber stoppers should be disinfected before piercing or be resealed with a sterile cover after use and kept at low temperature (40 C).

TJIOE SWIE BIE.

Myocardial infarction pada bangsa Indonesia (Myocardial infarction in Indonesians) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (6) : 198-202. June 1957.

The disease is not common in Indonesia. Two cases are discussed; therapy ; electrocardiograms ; 7 other cases in 1955 in the Central Hospital in Surabaja are cited.

VRIES, H. DE

Problemen bij de therapie met antibotica, gevaren en bijwerkingen (Problems in the therapy with antibiotics ; dangers and side effects) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (1) : 23—34. Jan. 1957.

A bibliographical survey of the history, effect, complications (allergic, toxic, effects of vitamin-deficiences, bacterial and fungus superinfections), and development of resistant strains, followed by an alphabetical list of agents or clinical symptoms with the reported effective combination.

WIDIJATMOKO, S.

Sumpah Hippokrates (Hippcratean oath) in Madjalah Kedokteran Indonesia (Indonesian Medical Journal) **7** (6) : 207—8. June 1957.

Three different versions of the oath are given : the original one, the one adopted in Geneva in 1848 and the very short and different Indonesian one.

619 VETERINARY MEDICINE.

MANSUR, MOHAMAD

Contribution to the knowledge of the "Penjakit Ingusan" of cattle and buffaloes in Indonesia, especially on the island of Lombok in Communicationes Veterinariae **1** (1) : 39—44. June 1957.

Author's summary of a thesis on this subject, submitted in 1954.

RESSANG, A. A. and I. TITUS.

A primary tumor (reticulum cell sarcoma) in the left prescapular lymph gland in a dog with lung metastases in Communicationes Veterinariae **1** (1) : 5-18. 1957. Description of a primary reticulum cell sarcoma, which had developed ni the left Lymphonodus cervicalis superficialis of a dog. In the lungs metastases were found. Besides the tumor cells, which could have developed from the Reticulum cells, numerous queer giant cells are present. According to the author this should be the third described case of a solitary malignant tumor of the lymphatic node of a dog. (12 photographic reproductions).

SEIT, B.

Artificial insemination and its possibilities in Indonesia in Communicationes Veterinariae **1** (1) : 19—38. June 1957.

Bibliographic compilation of history of artificial insemination ; a survey of the lines of development in Indonesia, advantages, technique of microscopical investigation of semen, preservation, etc.

624 CIVIL ENGINEERING.

ABBAS, Z. A.

Beberapa penjelidikan mengenai perlit di Indonesia (Investigations on perlite in Indonesia) in Masalah Bangunan **1** (4) : 5—19. Apr. 1957.

The Regional Housing Centre in Bandung started investigations in perlite, an exsudate of volcanic action. Perlites of commercial value are found in Banten (Java) and S. Sumatra. Simple methods of determining the expansion of perlite in the field and in the laboratory are described. It is shown, that the grade of expansion of perlite grains depends on temperature, heating period, size of the particles and its chemical composition.

A brief description of the physical properties of the perlites under investigation is given and results of furnace expansion experiments are tabulated. Maps are added, which show the site of perlites.

LIEM SIANG HOK.

Tinggi langit² rumah (Ceilingheight) in Masalah Bangunan **1** (4) : 31—2. Apr. 1957.

Compilation of report on ceiling-height in Singapore and notes on dry- and wet-bulb temperature, effective temperature and comfort zone.

WIJNHAMER, P. TH.

Nailed timber joints for house-building in Masalah Bangunan **1** (4) : 20, 24. 5 Apr. 1957.

For the low-income group of population small-sized timber and nailed joints are advantageous. A thickness of 2 cm and widths between 6 and 8 cm are considered sufficient ; nails should be small, as these are more tensioned during manufacturing and hence are stronger. To prevent shear and split, nails should be at least ten times their diameter from the timber

margin. Examples for permissable strength of nails in conjunction with timber used, are given. Ratios are given for single and double shear in 2—3 member joints are discussed and also the ratios in fresh or insufficienly dried timber. The number of nails needed is discussed and calculated. A kind of gusset-plate of two cross-wise layers of timber strips has been used on a large scale in Indonesia, for almost a decade ; they are easy to construct, but need much timber and nails.

Testing of nailed joints have given satisfactory results as to strength and rigidity and proved to be less affected by natural defects in the timber than the solid timber itself and showed more constant results.

63 AGRICULTURE. FORESTRY. ANIMAL HUSBANDRY.

ASHADI DJOJOPRANOTO, R. NG.

(Agricultural Experiment Station, Bogor). Kepik Lantana dipulau Timor (The Lantana-bug, Teleonemia scurpulosa St., in Timor) in Tehnik Pertanian **6** (3): 77—95. March 1957.

A bibliographic survey of the life history, area of distribution, taxonomy, etc. of Teleonemia scurpulosa, of the parasites of the bug.

Lantana, introduced in Timor in 1915 for prevention of soil erosion and soil improvement is detrimental to grass and cattle hides in brushes. Although the Forest Service opposed introduction of the bug, because it attacks teak leaves, it was introduced in 1954 in Timor. Biological control of Lantana failed in Timor. Experiments with feeding on teak leaves showed that the bugs cannot live more than 5 days on them and that they left teak leaves as soon as Lantana was in the neighbourhood.

ASHADI DJOJOPRANOTO, R. NG. and R. M. SOETANTYO SASTROSADARPO.

(Agriculture Experiment Station, Bogor). Biologi dan memberantas hama malindjo (Gnetum gnemon L.) dengan obat B.H.C. (Biology and control with B.H.C. of the Gnetum gnemon L. pest) in Tehnik Pertanian **6** (5): 153—92. May 1957.

The life cycle of the bug Guisardus guttatus Ashadi. Soet. (miridae) is studied.

The effect of spraying with B.H.C. (0,10%) proved to be effective and economically justified. Derris and parathin were less effective.

BERGER, L. G. DEN

In Tectona **16** (7) : 19, translated in Indonesian by I. B. NGADUNG. Pengumuman Pendek no. 4 Lembaga Pusat Penjelidikan Kehutanan, Bogor (Short Communication no. 4, Forest Research Institute, Bogor) pp. 1—7. 1957.

IMMINK, D. H.

Distribution of moisture in fresh logs in Tectona **16** (6) : 1923, translated in Indonesian by H. M. SOEDARMA in Pengumuman Pendek no. 3 Lembaga Pusat Penjelidikan Kehutanan, Bogor (Short Communication no. 3, Forest Research Institute, Bogor) pp. 1—21. 1957. (with English summary).

KRAMER, F.

Habitat and area of sandalwood (Santalum album L.) in Java in Tectona 15 : 1922, translated in Indonesian by M.H. SOEDARMA in Pengumuman Pendek no. 2 (Short Communication no. 2, Forest Research Institute, Bogor).

MUHAMMAD WEISS.

Botani hutan, ichtisar singkat dari nilai praktis serta techniknja (Forest botany, a general view of its practical value and its technique) in Pengumuman Istimewa no. 11, Lembaga Pusat Penjelidikan Kehutanan, Bogor (Special Gommunication no. 11, Forest Research Institute Bogor) pp. 1—20 Oct. 1957.

A plea for more ecological, botanical and soil survey in the forests of Indonesia in order to establish silvicultural methods on a safe base. Thus far there has been a neglect of these branches of investigation in the forests outside Java.

MURSAID, K. SOEDARMO.

Tabel tegakan sementara dari Anthocephalus cadamba Miq. (djabon) (Preliminary yield table of Anthocephalus cadamba Miq. (djabon) in Pengumuman no. 59, Balai Besar Penjelidikan Kehutanan, Bogor. (Communication no. 59, Forest Research Institute, Bogor) pp. 1—13. 1957.

Anthocephalus cadamba Miq. (vernacular name : djabon) of the Rubiaceae is distributed from India to the Indo-Malayan region, from sea-level to 900 m altitude. It requires pervious soils and grows well in periodically dry as well as constantly wet climates ; in the latter case it prefers physiologically dry soils.

It is a light demander, but as a pioneer it is tolerant against competition of weeds. It has a astonishing high increment in height and volume (increment in height of 1.7 m at the age of 5 years, slowly diminishing to 0.2 m at 25 years of age). Its habit: long branch-free bole, sparsely leaved horizontally branched crown.

A site-quality table is presented, using top-heights for distinguishing site-classes, contrary to European methods (especially Germany) which use mean height.

Top height is considered the average of 100 tallest trees pro hectare. Index-age was fixed at 15 years, accepting top-height of 21 m at that age for site class II, 24 m for site class III, and 27 m for site class IV.

Lack of data made it possible only to prepare 3 site-classes (II, III, IV). It should be stressed here, that contrary to European methods, site class I represents the lowest one.

The curves have been plotted according to the American method (Osborn and Schumacher).

The meaning of absolute site-classification (site absolute Bonitierung) and relative site-class and their interrelationship are discussed.

SARDJONO REKSODIMULJO, R.

Penjakit[2] tembakau Virginia tanaman rakjat didaerah Klaten (Diseases ot Virginia tobacco of smallholders plantations in the Klaten area) in Tehnik Pertanian **6** (1) : 20—35. Jan. 1957.

Bibliographic compilation of tobacco diseases and their remedies, covering papers (mainly published in Indonesia) from 1920—1950.

SCHOORL, P.

The importance of pastures for cattle-breeding in Indonesia in Communicationes Veterinariae **1** (2) : 80—96. Nov. 1957.

With the exception of few dairy farms and a military plantation near Tjimahi in Java and Madura no grass cultivation is practised in Indonesia. The grass requirement is estimated at 43,8 million kg daily, which implies that the entire cattle stock is chronically underfed. Stock farming improvement depends completely on grass.

A survey of literature on pasture and grasses is presented, conclusion : little attention has been paid to the improvement and greater production of livestock is paltry.

It is stated, that grass can be cultivated in Java without difficulty, especially on irrigated grounds, provided fertilizers are administrated. On irrigated grounds, even with 6 rainless months, conditions are more favourable than in the Netherlands.

Grass production experiments on dry not irrigated grounds are tabulated; the crop is successfull.

Methods are indicated to make pasture, in accordance with conditions prevailing. Manuring is an absolute must. A start was made of indentifying pastures botanically.

SIAHAAN, P. P.

(Agriculture Experimental Station, Bogor). Bertjotjok tanam jute (Culture of jute), Corchorus capsularis L. and Corchorus olitorius. in Tehnik Pertanian **6** (2) : 68—75. Febr. 1957.

A bibliographical survey of taxonomy, climate, soil, plant technic and preparing of fibres ; only a few papers cited.

SLAMET, M.

Penjakit[2] pada tanaman sajuran rakjat didaerah Lembang (Diseases of vegetables in the Lembang area) in Tehnik Pertanian **6** (1) : 1—19. Jan. 1957.

A bibliographic compilation of the diseases of cabbage, cauliflower, tomato, their origin, resistance and curing ; literature covers part of the period between 1930—1950.

SOEMARTONO.

Imunisasi aktif pada tanaman[2] (Active immunisation in plants) in Tehnik Pertanian 6 (6) : 193—244. June 1957.

A bibliographic compilation covering literature from 1923—1949.

SOEPONO, R. and B. ARDIWINATA.

Beberapa segi silvikultur dari pekerdjaan mekanisasi dalam hutan Dipterocarpraceae di Mentawir, Balikpapan. (Some silvicultural aspects of the mechanical logging in the Dipterocarp forest of Mentawir near Balikpapan) in Pengumuman no. 58, Balai Besar Penjelidikan Kehutanan, Bogor. (Communication no. 58. Forest Research Institute, Bogor) pp. 1—22. 1957.

The Mentawir Forest Reserve covers about 5000 ha on fine sandy soils, overlaying heavy loambanks. An iron-concretion level is found 3-4 m below the surface. The area consists of low ridges up to 160 m above sea-level. A list of tree-species with an estimate of available timber of each per ha. is given.

Sampling of estimation of survival or samplings after mechanical logging were carried out along strips, perpendicular to the logging railroad. The results are tabulated and showed, that a logging intensity of 30% does not show an unfavourable influence on regeneration.

SUTARDI MANGUNDOJO, R.G.

Pemberantasan tjendawan-akar putih dalam pertanaman karet (Control of white root disease, Leptoporus (Fomes) lignosus Heim.) in rubber plantations in Teknik Pertanian 6 (2) : 37-67. Febr. 1957.

A bibliographic compilation of taxonomy, biology, epidemiology and remedies, covering the years 1913-1955.

TAN HOK SENG.

Attempts to improve the Bali pig by introducing saddle-back swine in Communicationes Veterinariae 1 (1) : 45-67. June 1957.

In Bali two types of pigs are found, resembling the Sumba pig, derived from Sus vittatus, the other called the Bali pig, resembling the South China pig. The pigs are fed mainly with kitchen refuse. A primitive selection is practised. Breeding boars can only be kept by special people, who for generations had this privilege.

People prefer to raise a boar from a litter in which it is the only male piglet; but the most appreciated boar is the one, which is the only borne one in a litter (contra selection).

Sows, known for their prolificacy are preferred or piglets with long bodies and many teats. A plan, started in 1955, to improve the Bali pig by crossing with the Saddle-back, has been carried out in the Government Animal Breeding Station in Pekarangan. The crossbreds are characterized by a straight back, bigger and drooping ears, no abdominal sag and many have the white saddle.

Difficulties are discussed and the breeding, housing, feeding and result of saddle-back breeding at the station. (29 photographic reproductions).

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